
Novelty in *Tibetia* (Leguminosae) for China

Xiang-yun Zhu

Institute of Botany, The Chinese Academy of Sciences, Beijing 100093, China.
xiangyunzhu@ns.ibcas.ac.cn

ABSTRACT. A new white-flowered form is described as *Tibetia himalaica* (Baker) H. P. Tsui forma *alba* X. Y. Zhu (Leguminosae) from Sichuan Province, China.

Key words: China, Leguminosae, *Tibetia*.

In identifying specimens of Leguminosae in PE for the *Flora of China*, the present author found several specimens that are described as a new form, *Tibetia himalaica* (Baker) H. P. Tsui forma *alba* X. Y. Zhu. This differs from the typical form in having white flowers. The typical *T. himalaica* (Baker) H. P. Tsui forma *himalaica* has dark purple, violet, or blue flowers. The species was originally described in 1879 by Baker as *Gueldenstaedtia himalaica* and later moved to *Tibetia* by Tsui in 1979.

The occasional appearance of a white-flowered variant of a purple- or blue-flowered species of legume is not uncommon. White-flowered forms may occur in otherwise blue-flowered species, perhaps due to a single-gene difference. I would agree with this if these different flower colors appeared within a single population. For the new form, the white flower color was observed as a different and separate population, and the two flower colors were clearly distinctive from one another. During my expedition to Sichuan and Xizang in August of 2000, I investigated two populations in fields of Dêgê Xian in Sichuan Province. For these, one population had only white-flowered plants while the other displayed only blue flowers. Both populations were separated by 100 m and were never mixed in flower color. There are also many duplicate specimens of *T. himalaica* deposited in PE, and I have identified all as *Tibetia* specimens. White flowers were never mixed with blue flowers in collections from the same population. Based on the above observations, I treat the white-flowered plants as a new form.

A similar example can be seen in my treatment on *Oxytropis anertii* Nakai ex Kitagawa forma *al-*

biflora (Zh. J. Zong & X. R. He) X. Y. Zhu & H. Ohashi (Zhu & Ohashi, 2000). Here I also observed the white-flowered population of *O. anertii* forma *albiflora* to be absolutely separate from the violet or blue-flowered population of *O. anertii* forma *anertii* in the Changbai Mountains of China, although they share a close relationship.

Tibetia himalaica (Baker) H. P. Tsui forma ***alba*** X. Y. Zhu, forma nov. TYPE: China. Sichuan Province: Kangding, Zheduoshan, alpine meadow, alt. 4000 m, 28 July 1963, K. J. Guan & Wang W. C. 997 (holotype, PE; isotype, PE).

A typo floribus albis differt.

This form is different from the typical one in having white flowers.

Distribution. This white-flowered form, collected from Kangding Xian and Dêgê Xian in western Sichuan, China, was observed to grow in alpine meadows or along riverbanks at 3700–4000 m altitude, where it is apparently restricted.

Paratype. CHINA. **Sichuan:** Dêgê Xian, Babang Xiang, Shanbaike, on meadow of riverbank, alt. 3700 m, 9 July 1974, s. coll. 7341 (PE). [Other collections made of the Dêgê Xian white-flowered population were inadvertently lost by the flooding from mountain torrents in 2000.]

Acknowledgments. This work has been partly supported by the National Science Foundation of China (grant nos. 30170072 and 30270105). I am grateful to anonymous reviewers for their suggestions.

Literature Cited

- Baker, J. G. 1879. *Gueldenstaedtia* Fischer. In: J. D. Hooker (editor), Fl. Brit. Ind. 2: 117.
Tsui, H. P. 1979. Revisio *Gueldenstaestia* Sinensis et Genus Novum affine Eae—*Tibetia* (Ali) H. P. Tsui. Bull. Bot. Lab. North-East. Forest. Inst. 5: 51.
Zhu, X. Y. & H. Ohashi. 2000. Systematics of Chinese *Oxytropis* DC. (Leguminosae). Cathaya 11–12: 123.